

Claims

1. A two-part keyboard for separatably connecting to an electronic device for inputting data, said keyboard comprising:
 - a first housing, said first housing having a first keyboard part, said first keyboard part comprising at least a key, an inner part of said first housing forming a first space, said first space having a first outlet located on a right-side of said first housing;
 - a second housing, said second housing having a second keyboard part, said second keyboard part comprising at least a key, an inner part of said second housing forming a second space, said second space having a second outlet located on a left-side of said second housing;
 - a base, a left side part of said base movably connecting to said first housing, a right side part of said base movably connecting to said second housing, said first and said second housings moving towards each other or away from each other via the connection between said base, said first and said second housing;
 - a controller for processing an input signal coming from said first and said second keyboard parts, said controller electrically connecting to said first and said second keyboard parts; and
 - a connector for separatably and electrically connecting to said electronic device, said connector electrically connecting to said controller for transferring said input signal to said electronic device, said connector being installed in said base;wherein, when said first and said second housings move towards each other, said left side part of said base is received in said first space via said first outlet and said right side part of said base is received in said second space via said second outlet and, when said first and said second housings move away from each other, said connector is exposed to between said right side part of said first housing and said left side part

of said second housing for electrically connecting to said electronic device.

2. The two-part keyboard of Claim 1, further comprising a back plate, said back plate movably connecting to said first and said second housings, and when said first and said second housings move away from each other, said back plate is located between said base and exposed between said right side part and said left side part, and said back plate together with said right side part and said left side part defines a third space for receiving a part of said electronic device and, when said electronic device electrically connects to said connector, said back plate contacts a back side of said electronic device for supporting said electronic device.
3. The two-part keyboard of Claim 1, further comprising an elevating device, and when said first and said second housings move away from each other, said elevating device lifts said base upwards.
4. The two-part keyboard of Claim 3, wherein said elevating device comprises at least one elastic element with one end thereof connecting to said base, the other end of said elastic element connecting to a back plate, said back plate being situated beneath said base and slidably connecting to said first and said second housings.
5. The two-part keyboard of Claim 3, wherein said elevating device comprises:
 - a slot situated on a bottom face of said base, said slot having a central part, near a center of said base, and an outer part, near two sides of said bottom face, said central part being closer to an upper surface of said base than said outer part;
 - an axle, one end of said axle selectively connecting to an inner side of a bottom panel of said first and said second housings, with the other end of said axle being sleeved into said slot;
 - wherein when said first or said second housing slides away from said base, said axle moves to said outer part from said central part of said slot for guiding upward

movement of said base, and, when said first or said second housing slides toward the center of said base, said axle travels along said slot from said outer part to said central part for guiding downward movement of said base.

6. The two-part keyboard of Claim 3, wherein said elevating device comprises:

a slot selectively situated on an inner side of a bottom panel of said first and said second housings, said slot having a central part, near said outlet and, an outer part, distant from said outlet, said central part being closer to an upper surface of said first or said second housing than said outer part;

an axle, one end of said axle connecting to a bottom side of said base with the other end of said axle being sleeved into said slot;

wherein when said first or said second housing slides away from said base, said axle moves from said central part of said slot to said outer part for guiding upward movement of said base and, when said first or said second housing slides toward the center of said base, said axle travels along said slot from said outer part to said central part for guiding downward movement of said base.
7. The two-part keyboard of Claim 1, wherein an upper surface of said left side part and an upper surface of said right side part of said base respectively comprises an outward and downward incline surface, and, when said first and said second housings move toward each other, one edge of said first outlet and one edge of said second outlet respectively slide along said incline surface forcing said base to move downwards.
8. The two-part keyboard of Claim 1, further comprising a synchronizing device respectively connecting to said first and said second housings to render said first and said second housings to slide away from each other at equal speed.
9. The two-part keyboard of Claim 8, wherein said synchronizing device comprises:

a back plate movably connecting to said first and said second housings, said first and said second housings sliding towards or away from each other via said back plate;

a first rack connecting to said first housing, first rack being parallel to a sliding direction of said first housing;

a second rack connecting to said second housing, said second rack being parallel to a sliding direction of said second housing; and

a gear rotatably connecting to said back plate, said first rack and said second rack respectively engaging with two ends of a same diameter of said gear;

wherein, when said first housing slides inwards, said first rack drives said gear to rotate making said second rack to render the second housing to slide inwards at a speed equal to a speed of said first housing, and, when said first housing slides outwards, said first rack drives said gear to rotate making said second rack to render the second housing to slide outwards at a speed equal to a speed of said first housing.

10. A two-part keyboard for separately connecting to an electronic device for inputting data, said keyboard comprising:

a first housing, said first housing having a first keyboard part, said first keyboard part having at least a key, an inner part of said first housing forming a first space, said first space having a first outlet located on a right-side of said first housing;

a second housing, said second housing having a second keyboard part, said second keyboard part having at least a key, an inner part of said second housing forming a second space, said second space having a second outlet located on a left-side of said second housing;

a base, a left side part of said base movably connecting to said first housing, a right side part of said base movably connecting to said second housing;

a back plate movably connecting to said first and said second housing, said back plate

being located beneath said base, and when said electronic device electrically connects to said connector, said back plate contacts a back side of said electronic device for supporting said electronic device;

a controller for processing a input signal coming from said first and said second keyboard parts, said controller electrically connecting to said first and said second keyboard parts; and

a connector for separatably and electrically connecting to said electronic device, said connector electrically connecting to said controller for transferring said input signal to said electronic device, said connector being installed in said base;

wherein, said first and said second housings move towards each other or outwards via said base and via said back plate, when said first and said second housings move towards each other, said left side part of said base is received in said first space via said first outlet and said right side part of said base is received in said second space via said second outlet, and, when said first and said second housings move away from each other, said connector is exposed between said right side part of said first housing and said left side part of said second housing for electrically connecting to said electronic device.

11. The two-part keyboard of Claim 10, further comprising an elevating device, and when said first and said second housings move away from each other, said elevating device lifts said base upwards.
12. The two-part keyboard of Claim 11, wherein said elevating device comprises at least one elastic element with one end thereof connecting to said base and the other end of said elastic element connecting to a back pane.
13. The two-part keyboard of Claim 11, wherein said elevating device comprises:
a slot situated on a bottom face of said base, said slot having a central part, near a

center of said base, and an outer part, near the two sides of said bottom face, said central part being closer to a surface of said base than said outer part;

an axle, one end of said axle selectively connecting to an inner side of a bottom panel of said first and said second housings with the other end of said axle being sleeved into said slot;

wherein when said first or said second housing slides away from said base, said axle moves to said outer part from said central part of said slot for guiding upward movement of said base, and, when said first or said second housing slides toward the center of said base, said axle travels along said slot from said outer part to said central part for guiding downward movement of said base.

14. The two-part keyboard of Claim 11, wherein said elevating device comprises:

a slot selectively situated on an inner side of a bottom panel of said first and said second housings, said slot having a central part, near said outlet and, an outer part, distant from said outlet, said central part being closer to a surface of said first or said second housing than said outer part;

an axle, one end of said axle connecting to a bottom side of said base with the other end of said axle being sleeved into said slot;

wherein when said first or said second housing slides away from said base, said axle moves from said central part of said slot to said outer part for guiding upward movement of said base, and when said first or said second housing slides toward the center of said base, said axle travels along said slot from said outer part to said central part for guiding downward movement of said base.

15. The two-part keyboard of Claim 10, wherein a surface of said left side part and a surface of said right side part of said base respectively comprises an outward and a downward incline surface, and, when said first and said second housings move

towards each other, one edge of said first outlet and one edge of said second outlet respectively slide along said incline surface forcing said base to move downwards.

16. The two-part keyboard of Claim 10, further comprising a synchronizing device respectively connecting to said first and said second housings to render said first and said second housings to slide away from each other at equal speed.
17. The two-part keyboard of Claim 16, wherein said synchronizing device comprises:
 - a first rack connecting to said first housing, said first rack being parallel to a sliding direction of said first housing;
 - a second rack connecting to said second housing, said second rack being parallel to a sliding direction of said second housing; and
 - a gear rotatably connecting to said back plate, said first rack and said second rack respectively engaging with two ends of a same diameter of said gear;wherein, when said first housing slides inwards, said first rack drives said gear to rotate making said second rack to render the second housing to slide inwards at a speed equal to a speed of said first housing, and, when said first housing slides outwards, said first rack drives said gear to rotate making said second rack to render the second housing to slide outwards at a speed equal to a speed of said first housing.